

A
NEW THEORY OF FINGERING

(PAGANINI AND HIS SECRET)

by
ALBERT JAROSY

ENGLISH VERSION

by
SEYMOUR WHINYATES

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From Pablo Casals to the Author

"Thank you for your book on the technique of violin-playing. Obviously it would be ideal if a technique, based on easier position for the left hand, could be perfected—in my opinion this is what all intelligent players of string instruments, and certainly all the great virtuosos, have tried to achieve. I think you were wise to publish your manual; it will be a guide to the uninitiated and will strengthen virtuosos in their opinion that one should aim at achieving the maximum with the minimum of effort. So you see that, in the main, I accept your theories—beginners, certainly, who apply them diligently will find the path less arduous."

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"I have read your book with the greatest interest. My great age does not, alas, permit me to put into practice the excellent technical advices it contains—but young artists will certainly profit by it."

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Musikalische Revue (Vienna)

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To

MY DEAR FRIEND
AND PUPIL
SEYMOUR WHINYATES

A U T H O R ' S P R E F A C E

THE purely technical principles which I propose to set forth suggest a new theory of fingering, based on natural laws, making it possible to establish a definite and rational system. This system offers such advantages that even if it had not been inevitably associated with Paganini's name it would none the less have retained its full practical importance!

This book is not written for those novices who are inclined to imagine that virtuosity consists in certain more or less mysterious "tricks," familiarity with which at once leads to the mastery of all difficulties!

On the other hand, though this study is presented in close co-relation with the "secret" of Paganini, it is not with the intention of attracting the attention of violin players by an exploitation of that fascinating personality.

I must also add that this study has no connection with any hitherto published writings, and that it bears no relation to those so-called supernatural revelations which have attempted to explain by the most varied hypotheses the "gymnastic" or "spiritual" basis of the master's prowess.

On the contrary, it is the paucity of exact information about this greatest of all violinists that has inspired me with keen curiosity and stimulated me to seek out the hidden sources of his incomparable art; and to this long and patient research is due the discovery of the new laws of fingering, which I am about to set forth in the following pages.

I am writing this study in the hope of interesting those of my colleagues who believe with me in the further development of our present knowledge, and consequently in the necessity for a reform in our system of teaching.

Personal experiences during the latter years of my professorship have convinced me that the basis of this theory opens up a field of new possibilities to violinists. This conviction has been further strengthened by the way in which certain of my col-

leagues have completely come round to my way of thinking. At the outset they were all averse to a new system which would upset their acquired habits, and it was with mistrust and scepticism that they received the suggestion of the possibility of freeing themselves from the "sacred tradition" bequeathed to them by so many illustrious predecessors.

The example of Paganini further leads me to limit to a few pages what to my mind is neither a method nor a technical treatise, but merely a BASIS OF STUDY and a NEW POINT OF VIEW. For those who can grasp the enormously increased facility of execution brought about by the use of logical fingering it will be easy to solve problems of left-hand technique, and they will be spared much of the intensive study which is generally imposed upon them.

Within the limited scope of this study it is only possible to indicate a few of the main points of the system, but naturally this slight résumé can easily be amplified by examples taken from the vast field of violin literature.

Neither have I thought it necessary to explain in detail how it comes about that the discovery of a fingering based on natural movement should logically bring with it the solution of the problem of correctness of intonation.

ALBERT JAROSY

PARIS

C O N T E N T S

	PAGE
AUTHOR'S PREFACE	11
I. PAGANINI	15
II. LEGENDS	22
III. THE SECRET	25
IV. THE BASIS OF VIOLIN FINGERING	30
V. THE NATURAL FALL OF THE FINGERS	35
VI. SCALES	40
VII. THE ARPEGGIOS	48
VIII. NATURAL FINGERING IN THE CHORD OF THE SEVENTH	51
IX. THE FINGERING ADAPTED TO THE INTERVAL	55
X. THE NON-SUCCESSIVE SEQUENCE OF THE FINGERS	58
XI. EXTENSIONS	60
XII. HOW TO USE THE PRINCIPLES OF PAGANINI	62
XIII. EXAMPLES OF FINGERING	64

A NEW THEORY OF FINGERING

I

PAGANINI

"Who will be able in the future to believe in something of which he has not been a witness? I say without hesitation: there will never be a second Paganini."

LISZT

THERE was nothing wanting to the greatness of Paganini, not even the failure of his contemporaries to understand him. No other artist has been treated in such a superficial manner. Whether the strangeness of his appearance so affected his hearers that even the more cultured among them were influenced by it to the exclusion of other impressions, or whether it was that his overwhelming technique stupefied his fellow violinists to such a degree that it became suspect to them, it is in any case a fact that the public opinion of his day represented him as a disquieting kind of acrobat, a mysterious practiser of witchcraft, in short as something of a sorcerer, or a "Cagliostro" of the violin, with a dubious reputation.

Moreover, the mystery has remained unsolved even until to-day; and if, thanks to Liszt (the only man who appears to have understood this exceptional artist), and thanks also to Schumann and Brahms, respect for the composer of the *Twenty-four Caprices* has finally been impressed upon the younger generation, yet we still continue to find that the violinists of to-day approach the tormenting Paganini problem with the same air of uncertainty.

It must be admitted that to understand his unique personality by the usual methods is wellnigh impossible. There is, in fact, no trace of what might be called a "tradition," not even, indeed, a single landmark to guide us. Moreover, we shall only

be led into error if we follow his biographers, for they all take up a rather childish nationalistic attitude, endeavouring to explain the mentality of the artist by that of the Italian.

We can also dismiss as hopelessly inaccurate all those fantastic stories about Paganini when travelling, in inns, or in the artist's room, legends due for the most part to the colourless gossip of some chance acquaintance, afterwards heightened by rumour.

Paganini was a very secretive character, and it is this excessive reserve that is responsible for the efforts of his contemporaries to account for his exceptional talent by a hidden power. In the presence of genius the man in the street has recourse to the supernatural in attempting to explain what he cannot understand. Thus was spread the rumour of Paganini's "Mephistophelian" inspiration. This legend was so useful that it readily became incorporated in a campaign of cheap advertisement; and people came to believe that the originator of this slander was Paganini himself; whereas he was in truth victimised by it, simply as the result of human folly.

Nothing availed him. Protests, declarations, sarcasm—all were in vain! This unique artist, offering as he did an unparalleled revelation to the world at large, was obliged to go through life labelled in this degrading fashion by the ignorance of the mob.

That his misanthropy should have increased is not surprising; moreover, the contempt which he felt for his public was abundantly justified: "For such as these," he thought, "*my Carnaval de Venise* is quite good enough."

The same feelings seem to have worked in the soul of Liszt, which explains how it was that he understood so well the Promethean grandeur of Paganini's tragic fate; in fact, he, a pianist, has done more than any violinist to establish Paganini's reputation. "The greatness of this genius, unequalled, unsurpassed, precludes even the idea of a successor. . . . No one will be able to follow in his footsteps; no name will equal his in glory. . . ." Thus spoke Liszt, one of the deepest thinkers

amongst the greatest virtuosos. These words give us food for thought. Have we not reason to believe that side by side with Paganini the "technician" there may have existed another, a greater, Paganini, and one more worthy of Liszt's high ideal? We find the reflection of this other, more spiritual being in Berlioz' description: "If I have formed such a high opinion of him, it is mainly because of his conversation, which is illuminated by a kind of radiance, such as emanates only from certain outstanding beings and which surrounds Paganini with a poetic glory."

* * *

In order to make clear what follows, I must emphasise the different types of violinists, and I shall distinguish them thus:

- (1) Composer-violinists,
- (2) Executant-violinists,
- (3) Violinist-composers.

In the first category we can include a large number of the great composers of the seventeenth and eighteenth centuries, not to speak of Bach, Mozart, and Beethoven. But these old masters were in no way diverted from their creative work by any preoccupation with the instrument, and the technical knowledge of the violin which they had acquired was only used as a further asset to their musical knowledge.

With the executant-violinists we enter the field of artists who are, in fact, pathetic slaves, solely preoccupied in serving the genius of others, and making faithful interpretation the goal of their laborious lives.

Violinist-composers are of two kinds: players who, with the aid of an exceptional technique, endeavour to express their individual personality; or, again, those who, with a view to removing the limitations imposed upon their instrument, endeavour to enlarge its possibilities and develop its technique.

"There is no violinist who would not prefer to play his own melodies."
GOETHE

In this category we find Corelli, who has left volumes of works; Tartini, who wrote more than fifty sonatas and eighteen concertos; Viotti, that tragic genius; Kreutzer, Rode, Spohr, Gaviniès, Ernst, Vieuxtemps, Wieniawski, Bériot, and many others.

Apparently these violinist-composers suffered from a strange curse: i.e. the consciousness of their own impotence. Few of them escaped this curse, and none of them, in spite of desperate efforts, succeeded in realising their secret dreams.

Tartini heard a sonata in his sleep—"so wonderful and so beautiful, played with so much art and such mastery that the most vivid imagination could not attempt to soar to such heights. . . ." "I was so dazzled by it, so profoundly moved, that my breath failed me and I awoke. I seized a violin, in order to try and retain at least a part of the melody which I had heard in my dream. . . . In vain! The music which I then composed was, it is true, the best that I have yet produced, and I still call it *The Devil's Trill*; but, nevertheless, there is so much difference between it and the music which moved me so deeply in my dream that I would willingly have broken my instrument and abandoned the pursuit of music for ever. . . ."

This heartfelt cry of despair reaches us from all such violinist-composers; the greater the musician the more moving the despair.

"It almost seems as though I had been condemned to achieve nothing in music . . . and yet I have put so much into my art. It is my 'holy ground.' I would joyfully sacrifice my life for it. . . . Yet I seem to achieve nothing . . . or almost nothing. . . . It is as though some tragic fate hung over me, against which I struggle in vain. . . ."

The speaker of these words was none other than Joseph Joachim, at the height of his glory.

In almost all these men we find traces of these despairing moments of renunciation and discouragement in the face of an impossible task . . . with one exception: Paganini.

He achieves complete freedom, he is able to express the

wildest flights of his fancy, for, one by one, his instrument has revealed to him all its secrets. He feels himself in a position to attempt and achieve hitherto unattainable feats. Thus it is that he occupies a unique place amongst violinists, comparable only to that of Liszt among pianists.

Paganini represents essentially the independent, individual violinist; he remains for us the only "violinist-creator" who had such complete mastery of all the resources of interpretation that the public *could no longer differentiate between the value of the composition and that of his virtuosity.*

Paganini played only his own music, but in such a way that no one following after him will ever be able to interpret it as he himself did. It is bound up with his own personality as a virtuoso, and if it has become immortal, it has earned this title by the very fact that no one but its creator could ever express it.

Paganini knew that his music would perish with him, and it is probable that this sad presentiment gives us the answer to the question: Why did he not ensure the future of his solos by transcribing them?

Was it from fear of imitation, as some have insinuated? . . .

To this I can boldly reply: No! for although there have been great violinists capable of playing magnificently those more or less authentic works which tradition has attributed to him, there has not been a single one who, in performing them, has been able to inspire us with the emotion of which Liszt and Schumann have spoken, an emotion capable of transporting us to other worlds.

No, Paganini feared neither rivals nor successors; with him disappeared "a miraculous being such as the world of music has known once, and once only. . . ." (Liszt.)

Had Paganini transcribed his compositions he could only have given us a bare outline of the marvellous structure of his imagination and "of his burning, inspired heart." (Goethe.) He knew very well that the breath of life which he had breathed into them must die with him.

At the age of forty-six Paganini left Italy in order to give a series of concerts abroad; and he appeared in public armed not only with an incomparable mastery of his instrument, but armed also with an irresistible boldness of which few artists are capable.

The "pale madman," conscious of his power, appears before the multitude, and instantly we see the people bow before his passionate gaze, before the flame of his boundless inspiration. He forces them to deny their old gods, he holds them captive by his genius from the moment that he takes the violin in his hands. This indefinable magic will not be found in *Les Streghe* nor in *I Palpiti*, nor in those other works of his which so many of our talented violinists play so adequately to-day. . . .

Paganini, like a Hindu fakir, hypnotised his audience; he forced them to "hear" that which no pen could ever write.

"Paganini has such an effect upon the emotions of his audience, that they are no longer capable of using their judgment; while they are under his spell they remain in a species of trance. . . ." (Extract from a criticism written in the year 1829.)

What impression do we gather from the more intelligent members of this enslaved audience?

"A Paganini evening! Ravishing, is it not? Music from another sphere, something beatific . . ." notes Schumann in his private diary, whilst Marx, the celebrated writer on music, is not afraid to say: "Those whom he has bewitched are unable to understand how it is that others still continue to play Mozart or Mercadante. . . . It was no longer violin playing, it was no longer music, it was magic . . . well, perhaps it was music, but of a most unusual kind."

Léon Escudier finds in Paganini's playing "the irony of Byron, the fantasy of one of Hoffman's tales, the dreaming melancholy of Lamartine, and the burning hell of Dante."

Finally, Heinrich Heine, describing one of Paganini's concerts, says: "This is something that the ear has never heard, something that the heart alone can imagine. . . ."

Yet who could imagine the painful struggle through which Paganini the violinist attained to the ideal of Paganini the composer? At the same age at which Joachim suffered despair, Paganini put aside his violin, and we see him trying, through the study of another instrument, to discover the secret which eluded him in his own. Was he attracted by the possibilities of new harmonies? We do not know. He lived for four years in the country immersed in the study of the guitar, and he succeeded in obtaining an unheard-of and absolute mastery over that instrument. But here again, what do we know of this phase of the artist's evolution? . . . Nothing.

For though it is true that a close study of the *Twenty-four Caprices* enables us to appreciate the great advance he brought about in the sphere of technique, yet it reveals to us absolutely nothing of the essence of Paganini's art. Nor can we see anything but fantastic irony in the famous dedication: To Artists.

Paganini remains remote and impenetrable; and once again Liszt, understanding this isolation, says to us: "He was great . . . and who knows what price a man must pay for greatness?"

Paganini, in whose eyes Heinrich Heine had read "the terrible anguish of the sinner," Paganini knew. . . .

II

LEGENDS

BEFORE continuing the main theme of this technical treatise let us rapidly review the series of myths and legends still current among violinists.

Ignoring such fabulous tales as that of his imprisonment, etc., tales to which the master's peculiar mode of life gave rise, and which were further coloured by the delight he took in an extravagant presentation of the events of his life, let us confine ourselves to setting right some of the absurdities which were spread abroad about his art as a violinist. This art was the result of two factors: *firstly, an exceptional gift, and secondly, long years of intense and concentrated study.*

This point once realised, it will be easy to show that certain ridiculous assertions could only have gained credence through ignorance and superstition.

For instance, Paganini's contemporaries frequently said that he could play in tune on an instrument which was completely out of tune. . . .

This arose from the fact that Paganini, in order to play certain of his works, tuned a string or strings to another note than the ordinary fifth (we will explain this later on), so that when he played an open string that note seemed to his auditors to be out of tune.

As for the rumours that he "allowed his violin to lie idle for months together, and could then play in public at a day's notice with his accustomed brilliance"; that he could play the most difficult concertos with the music upside down; together with the assertion that "he never studied"—all these are to be regarded as so much useful material for the type of advertisement then in vogue.

The same foolish statements were spread about Lolli, and these falsehoods are all the more irritating in view of the fact

that Paganini never indulged in extravagances of this kind, his technique being based on the most systematic and disciplined work.

"I have never before heard the accented details occurring on the weak beats played with such precision," says Guhr; "they were played without altering the tempo and with the greatest rapidity."

This observation shows us how conscientiously Paganini built up his technical execution.

And if he did not devote himself to intensive study while on his travels, it was because he was able to rely on a knowledge based on definite methods; also because his comparatively limited repertoire was composed solely of his own works, the difficulties of which he had already overcome.

For the secret of the magic tone of his *cantilene*, we must seek a solution in his complete understanding of the Italian *bel canto* so admired in his time.

Fillippo Zaffarini, of Ferrara, whom Paganini held to be the greatest connoisseur of Italian singing, was said to be one of his most familiar friends. The importance of this friendship cannot be exaggerated, for through it the school of the singer helped to create the school of the violinist.

"Rode must have acquired the peculiarities of his art, which differentiate him from the school of Viotti, from the celebrated Grassini, whose singing he took as his model." (Spohr.)

In conclusion, let us add that one of the best accredited of these legends tells us of Rossini playing Paganini's *Caprices* magnificently, having spent five months only in studying the violin according to the master's method.

As a matter of fact there is not a single document in existence to prove that Rossini ever took up the study of the violin at a mature age, nor that these mythical studies could have enabled him to play the *Caprices*.

Alas, we do not even know how or when Paganini himself played them, since they are not to be found in the programmes and documents of the period.

National vanity probably accounts for the Rossini legend. Paganini himself was not immune from this weakness, and we may doubtless impute to it his exaggerated eulogies of Gaetano Ciandello, the 'cellist, the only artist to whom he confided his "secret."

We have sought in vain for any information concerning this musician's career; and though we know that he played at the first desk in the Cola theatre, we are still far from concluding that he did anything to deserve Paganini's designation of "the greatest violoncellist in the world."

Schottky writes:

"Paganini delights in praising, sometimes from good-humour, and sometimes from kindness; and he praises even his most mediocre colleagues as well as amateurs. I have heard him eulogise people who have absolutely no merit."

III

THE SECRET

“... Before his death, he would reveal his secret in a Treatise on violin-playing, requiring a few pages only, which would overwhelm all violinists with amazement.”

LAPHALÈQUE

THERE are few violinists who, in the study of the history of their art, have not found the literature relating to Paganini full of interest.

Unfortunately, most of the works which give us any information about this greatest of violinists are like certain religious treatises which, while endeavouring to give us definite instruction, are nevertheless unable to free themselves from superstition or to detach truth from legend.

The “imitators” of the master who, even in his lifetime, were not afraid to style their own works or interpretations “à la Paganini” or “according to Paganini’s method,” were succeeded by a galaxy of teachers convinced that the art of the master rested on an “acrobatic trick” which it was only necessary for them to discover to obtain the same results.

We will not allow ourselves the too-easy task of criticising such writings as the pamphlet (signed by a virtuoso, professor at a Conservatoire) entitled :—

The secret of Paganini; for all Stringed Instruments, the Piano, and Side-drums.

In conclusion, if I allude to Guhr’s widely-read book, *Paganini, and his Art of Violin Playing*, it is solely in order to mention that in his *Art of the Violin* Laphalèque, himself being the author of a charming *Note on Paganini*, expresses the justifiable opinion that Guhr is “almost comic in his ingenuousness.”

It is easy to see the reason for so many errors. In the main the commentators have tried to account for the extreme and

so-called "miraculous" technical boldness by a sort of demoniacal bravura.

Others, it is true, have conducted their researches more scientifically, but still without successfully separating exterior traits from that which they call "the Paganini style."

We find, moreover, in every domain of art, this foolish attitude, i.e. of trying to understand a great genius by means of sidelights on his art and personal anecdotes, instead of concentrating on the instructive contribution with which every master enriches his art, and which is his bequest to posterity.

Let us, once for all, put on one side those who seek a solution of the enigma in exaggerated extensions of the fingers, studies of harmonics, or interminable hours of mechanical drudgery. What do we know of the secret of Paganini?

To Professor Schottky, of Prague, his friend and biographer, is due the data on which this study is based.

He says:—

"Paganini, when talking with me, very often expressed the hope that, when he had finished his travels and was able to live a quieter life, he would publish a musical secret, hitherto untaught in any Conservatoire, and which would enable a young player to master his art completely in a maximum of three years, instead of a possible ten. . . ."

"My secret, if I may call it so, will be the means towards a better understanding of the nature of the instrument, which is richer than is generally understood. This discovery I do not owe to mere chance but to careful study, thanks to which it will no longer be necessary to work five or six hours a day. It should revolutionise the present school of teaching which seems to complicate rather than elucidate. But it is an error to try and explain my secret by my way of tuning or my method of bowing, when it has in reality a rational basis."

From these words we can see at once that there is no trick here, but a method of teaching on a new and rational principle which is at the service of any gifted violinist.

This principle should enable all violinists to discover the

true nature of their instrument ; or, in other words, the natural method of treating it.

We see, therefore, that hitherto the technique of violin playing has not followed the most natural course, and that ignorance of the true relation between the hand of the violinist and the fingerboard of his instrument has been an obstacle to its mastery. It is, therefore, reasonable to suppose that, if this relation were correctly established, the length of time devoted to the study of technique might be appreciably diminished.

For what is technical study if it is not wrestling with the resistance of the fingers? These can only move "naturally" when no "unnatural" restraint is imposed upon them; then, and then only, is there no resistance, and the labour of overcoming it becomes pointless.

The following chapters will show how far our present school still is from this natural principle. Nor has it, up till now, been taught in any Conservatoire.

For this principle is foreign to the mechanical work which still dominates the teaching of the violin, while not sufficient attention has been paid to "reason."

We have already stated the fact that Paganini's discovery has nothing to do with the brilliant accomplishment of his bravura; and we also know that there is a new principle of left-hand technique which does, in fact, constitute the famous secret sought for in vain by so many. . . .

Now the secret is simply this :—

The fingering of the violin, based on the natural fall of the fingers. Paganini had arrived at this discovery while working at the guitar, the exigencies of which had led him to make various changes in his technique. By the study of chords and arpeggios on that instrument (studies and arpeggios which he afterwards utilised in his *Caprices*, to the great astonishment of violinists) he evolved a larger harmonic range and, at the same time, broke away from the old conventional rules of violin fingering.

While playing the guitar he realised the awkwardness of the forced extensions and unnatural fingering then in use;

for the necessity of playing rapid successions of chords on the guitar made him see these difficulties more clearly.

The technique of the guitar was already based on a more natural system than that of the violin. Undue demands on the muscles of the hand, necessitated by wide stretches, were avoided, and *the finger was selected according to the size of the interval to be played and its own natural fall.*

In other words, *a succession of four consecutive notes would not necessarily mean the use of four consecutive fingers!* This important point will be emphasised in a future chapter.

We must also point out that this discovery of Paganini's did not pass unnoticed. Gottfried Weber, the orchestral leader, wrote:—

“Paganini's fingering, sometimes unorthodox, or, rather, *independent of the laws of fingering*, shows itself to be the result of a *deeply reasoned method*, not merely a caprice.”

Schottky writes:—

“He plays the most difficult chords and very beautiful arpeggios. He uses, moreover, *a fingering peculiar to himself. . . .*”

Fetis (*Revue Musicale*, 1831) says:—

“What he has accomplished in violin playing has so little relation to what is usually heard that he could only have reached this pinnacle by a unique method; moreover, *his fingering bears no resemblance to that which is usually taught.* He will, at times, employ one finger in place of another, but more often he will use one and the same finger for several notes.”

Laphalèque puts it in this way:—

“Paganini plays more or less in the same way on the guitar as he does on the violin, although he does not follow the method of Giuliani, the cleverest guitar player of our time.”

So we see that this peculiarity of fingering was noticed by all admirers of Paganini's art. But they were unable to explain it; and this is the more understandable to us, knowing as we do that Paganini avoided giving explanations of his work, and that the editions of his time were incomplete and primitive.

In the course of the following pages it will be shown that the natural fall of the fingers is the only basis which could have given Paganini that supreme power over his instrument and that incomparable technical mastery which so bewildered his contemporaries.

IV

THE BASIS OF VIOLIN FINGERING

"Would a master allow a pupil to attack a string roughly, or to play intervals according to his own fancy? It is a striking fact that in the world of music, little is left to the fancy of the student. His field of action is prescribed; the instrument with which he has to deal is put into his hands, and he finds himself being taught the art and the way in which he is to make use of it; by this I mean that he is shown a system of fingering which simplifies this known difficulty, one finger giving place to another, the only method which makes possible the impossible. The best justification for the strictures of these laws is that the man of genius and of natural talent accepts them with attention and good grace. It is only the second-rate individual who wishes to subordinate the Whole to his own limited personality, and who tries to pass off his false ideas by labelling them independent and original."

GOETHE

THE problem of violin fingering is as old as the art of the violin itself. In each stage of technical development we see considerable changes, for every great teacher of the violin, throughout the ages, has felt it incumbent on him to try and find a rational system of fingering.

Consequently, innumerable "methods" and "studies" have been bequeathed to us by the masters of the past, in order that we might profit by their experience and their theories of fingering. One has only to see, on the one hand, how faithfully the public runs after "newly revised editions," and, on the other, the liberties which "revisers" take in re-editing the works of their predecessors, to convince ourselves that some reform is imperative in a matter where, hitherto, nothing definite seems to have been achieved.

This uncertainty is easily understood if it is remembered that teaching has chiefly concerned itself in advocating a *gymnastic education*, designed to strengthen the muscles of the left hand, instead of trying to find some rational and scientific rule underlying a choice of fingering.

"Fingering is an individual matter. . . ."

This phrase, so often heard, is in contradiction to all the science of teaching, and has acquired the strength of a dogma.

In addition, a second idea has been formulated: there are two sorts of fingering—the "practical" and the "artistic."

The first category includes those fingerings which are most easily acquired with the help of elementary principles; while the second is for the use of more advanced executants. In other words, elementary fingerings are for the use of those players who dispense with all fine shades and nuances of sound, that is to say, all artistic interpretation. The mediocrity of this classification is obvious.

Before going deeper into the question we think it may be pertinent to ask: *What is the use of marking and publishing fingerings?*

What player, recalling his student days, does not remember *that none of his professors adhered faithfully to the fingerings as marked* (even when these were indicated by the composer himself), and that every change of a teacher meant "a change and amelioration" of fingering.

Indicating as it does no more than the technical means used by each preceding player, is not any writing down of fingering superfluous?

If a definite plan underlay the choice of fingering, then a law might be established which could be put into general use.

This law should help to facilitate the execution and at the same time be sufficiently adaptable to suit the individual needs and aspirations of the artist.

In short, what is needed is *a law of fingering, the fundamental rightness of which would dominate all personal methods.*

This fingering should be in the nature of a model, a help to individual research. Until now all fingering has tended to be arbitrary and dogmatic.

The system of "fifths" in use for many years marks, however, an undeniable advance in the history of violin playing.

On the other hand, the celebrated theory of Wassmann, as

explained in his *Discovery of an Improved Violin Technique*, in which he vainly tries to reconcile the *normal position* of the hand with the *normal position* of the fingers, constitutes a set-back.

Though he rightly suggests that the hand and fingers should be held in the same attitude for all the positions, he ignores the most important fact of all, namely, *the normal position of the fingers*.

Another of Wassmann's errors is to advocate the playing of fifths by the first finger only, although the normal system of positions in no way necessitates this.

On the contrary, the theory of fifths is of no value unless it is used, not only as a point of support, but also as a pivot round which the other fingers can move normally and freely.

Nor is Wassmann's theory of fingering for scales an improvement on the old method. We find excellent theories, here and there, but they always work out badly in practice, and while the author shows us the inconsistencies of the old system of positions, he fails completely when he tries to reconcile his changes of position with the regularity of fingering for scales.

More interesting to us than his theories is the fact that Wassmann, too, realised the correlation between the *problem of fingering and the art of Paganini*. He came to the conclusion that *Paganini held his hand in the same way for all the positions, that is to say, that the position of his hand was normal*.

"That the position of the elbow (not customary before that time) arose from the necessity of holding the hand in the same way for all positions; and that consequently there cannot be more than one way of holding the elbow. . . ."

* * *

If we look at the old systems of fingering, we see that they are derived from scales and arpeggios.

But what fundamental value have they if the pedagogues up to the present have neither succeeded in establishing a single uniform method of fingering for scales, nor in finding a

formula which will allow them freedom of execution comparable to that, for example, of pianists? Does it mean that they do not understand what Paganini used to call "the nature of their instrument"?

And must each individual be allowed to use "his own" fingering for scales, without being able to give a good reason for his choice?

This arbitrary way of dealing with the art of fingering is due fundamentally to the lack of any logical system.

Such teaching has no art and no foundations. And this chaos will continue so long as the violinist relies on his "instinct" rather than his knowledge; and so long as his mental indolence blinds him to the fundamental mistakes of his incomplete and false instruction.

It is a far cry from "instinct" to true art. We have proof of this in that crowd of highly gifted "tziganes" who have as yet produced no really notable violinist.

The lack of progress in violin teaching is the more obvious when it is compared with the marked development of the art of composition. Indeed, our own times present us with new harmonic and chromatic technical problems and difficulties, and these cannot be solved by the old means without obliging the student to make an effort disproportionate to the results.

The object of this book is to establish a system of fingering which can be used in all circumstances, a system which will simplify the task of the modern violinist as well as increase his resources.

This system differs from all others in one important particular; it takes into account the natural difficulties due to the structure of the left hand.

And whereas all "studies" and exercises have been directed till now towards overcoming these natural restrictions, the system which I have set forth in the following pages takes into account the physical nature of these obstacles.

It aims at avoiding rather than combating this difficulty, and the very basis of this system rests on due regard being paid

to the structure of the hand and the natural tendencies of its muscles.

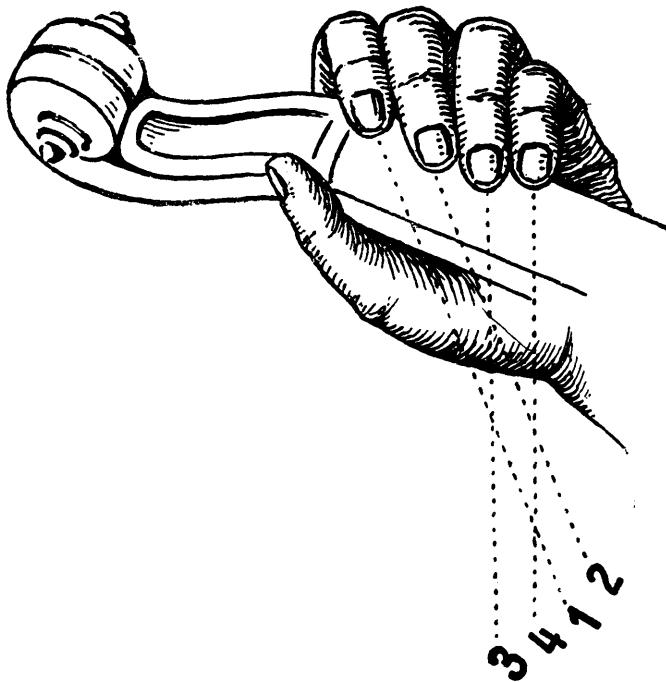
This book is, of course, addressed only to the experienced violinist. Yet, should the professor take these principles into consideration and revise his method of teaching in accordance therewith, they might very easily be applied to the teaching of beginners.

V

THE NATURAL FALL OF THE FINGERS

ALL modern teachers are, generally speaking, of one mind as to the correct position of the left hand. Therefore, accepting this position as settled, let us take it as a basis for our demonstration.

Having taken the violin in our hand in the accepted position,



let us allow our fingers to fall on the strings, taking care that in so doing they make no effort of any kind. In this way we can ascertain the result of a movement made in harmony with the structure of the hand.

We shall see that the first and second fingers incline obliquely towards the body of the violin, while the third and fourth tend

to take a direction which crosses that of the first two fingers. The second finger falls of its own accord at a marked distance from the first, and close to the third, which again joins itself to the fourth.

In other words, the intervals produced by the fingers falling without any effort are:—

- the first to the second finger: a tone;
- the second to the third finger: a semi-tone;
- the third to the fourth finger: a semi-tone.

The image contains two musical staves. The top staff is labeled "Half position" and shows a sequence of notes with fingerings: 1, $\frac{1}{2}$, $\frac{1}{2}$. The bottom staff is labeled "First position" and shows a sequence of notes with fingerings: 1, $\frac{1}{2}$, $\frac{1}{2}$.

This experiment will show us where the difficulties of the hand lie. These difficulties are experienced whenever the two first fingers have to stop an interval other than a tone, and in the case of the other fingers, other than a semi-tone.

Experience has proved that the first two fingers are the most readily adaptable; and that it is always the last two which are the most stubborn.

The natural tendency of the third finger to stop a semi-tone is an impediment against which a life-long struggle has to be waged, whenever it is called upon to stop a larger interval in a rapid tempo, such as the minor keys often demand.

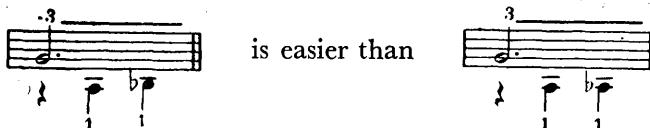
The image shows a musical staff with a sequence of notes and fingerings: 2, 3, $\frac{1}{2}$, 3, 2, 3, 1.

Examples of intervals of this description

The image shows a musical staff with a sequence of notes and fingerings: 3, 3, 3, 3, 3, 3, 3.

always present difficulties of execution.

In fact, the first finger moves more naturally a semi-tone up than down.



On the other hand, if the fourth finger falls a whole tone from the third, it will descend much more easily than it can ascend.

Of all the fingers, the second is the most responsive to the changes of direction demanded of it, though a difficulty makes itself felt in polyphonic playing when the third and fourth fingers are held down.



Hitherto the aim of all teaching has been to overcome natural difficulties by the choice of appropriate exercises. But in the case of the normal hand these difficulties cannot be entirely overcome.¹

The object of mechanical study is to attain the correct movement by: (1) forming a habit through repetition; (2) by gymnastic exercises; practising extensions so exaggerated that in comparison smaller extensions are played with ease.

These principles, doubtless accepted by Tartini, and themselves Paganini's foremost concern, have become the chief basis for the study of the mechanism of the left hand.

Sivori (a pupil of Paganini) said rightly in this connection: "The secret of virtuosity lies in fingered octaves."

Nevertheless, though we may succeed in conquering the natural tendencies of the muscles by setting them to work on unnatural tasks, it must be admitted that the victory gained is of a very fleeting character.

¹ The celebrated violinist, M. Huberman, remarks with truth "that all violinists fail in intonation on the same notes."

For this subjugation of the fingers can only be maintained by waging a merciless war against nature, and by ceaseless and repeated effort which can never be relaxed.

For us, understanding as we do the nature of the structural impediments of the hand, and realising consequently the resulting importance of a natural tendency of the muscles, this question follows automatically:—

Is there no means of reconciling the natural tendencies of the hand with the necessary demands made by the intervals, so as to avoid, as far as possible, the struggle against nature and thereby reduce the main difficulties of technique?

In the course of the following pages we shall give numerous examples in every position where the use of the natural fingering seems to us to be justified, and at the same time this will serve to show the illogical nature of the conventional fingerings, many of which have been settled in defiance of harmony.

The habit, for instance, of playing two succeeding chromatic notes with one finger is completely illogical, no thought being given to the fact that *the movement of a semi-tone is sufficient to change the position, that is to say, "the natural direction of the finger."*

If we are agreed that what is technically called "position" depends upon the hand, not upon the fingers, and that the hand must shift naturally and easily, it is clear as a result that it is not the same thing for the first finger, finding itself in the second position, to play C natural or C sharp on the A string.

If we want to put this idea of natural fingering into practice, then we must logically arrange for *our positions to ascend not in tones, but in semi-tones.*

It is therefore reasonable that a "half-position" has been used, placed before the first; unfortunately, violinists have not yet succeeded in working out the idea to its logical conclusion.

It seems to me that the time has come to put an end to the conventional ideas regarding the "normal position" established by Geminiani (*Violin Method*), which has sapped all our teaching since 1740.

The natural fall of the fingers gives us this:



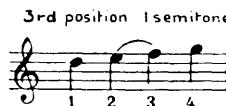
and the modification brought about by the length of the neck of the instrument (see J. Joachim's *School of Violin Playing*) is not of vital importance.

The choice of these notes is determined by the free fall of the fingers according to their natural inclination.

It is this fact that led Bériot to advocate the use of the scale of G major as the easiest for beginners instead of that of C, while Joachim prefers that of D major. In these two scales played in the first position the fingers fall without contraction, while in C major difficulty is experienced.



This accounts for the fact that there has hardly ever been a pupil who has not found the second position more difficult than the third; in the second position the fingers do not fall easily, whereas in the third they do fall naturally.



(NOTE.—All violinists have a preference for the key of D.)

VI

SCALES

HAVING recognised that the scale is the basis of all fingering, we must now find a definite proof to support our theory.

The fingerings used for scales are generally as fantastic as they are variable. This we have already noted. It behoves us, therefore, to evolve if possible a formula which will enable us to establish *a uniform fingering for all scales*, and one moreover which will not run counter to the natural tendency of the hand.

If we wish to solve this problem, it is of course essential in the first place to make a clear break with all established traditions and conventions, and take as our starting point the natural fall of the fingers.

The result of our studies will surprise us by providing a uniform method of fingering, and by solving for us a technical enigma, over which violinists have hitherto cudgelled their brains in vain. Before going further into this question, let us first of all clear up a few facts with regard to scales.

We see that, contrary to established custom, *every scale should normally begin with the fourth finger* in place of the open string.¹

We can divide the major scales into two groups:—

- (1) Scales which conform rigidly to an uniform fingering;
- (2) Scales which demand a few simple changes in the first octave.

The examples of fingerings given show how it is possible to remedy this “irregularity,” the reason for which lies “in

¹ Mantovani, *The Secret of Paganini*.

“Paganini affirmed that there was in reality only one scale and one position.”

“Paganini used the fourth finger more frequently than other violinists, and he gave the impression that he always played in the third position.”

the nature of the instrument," in the number of strings in use, and in their tuning.¹

FIRST GROUP.

D flat, D major, E flat, E major, F major, F sharp, G.

SECOND GROUP.

A flat, A major, B flat, B major, C.

The use of "non-successive" fingerings, such as those indicated for the scale of A major, will play a large part in the development of the minor scales mentioned further on; the formula for the fingering of the major scale:—

4—1—2—3—4—1—2—3 will change in an ascending minor scale to 1—2—3—4—1—2—4.

In the minor scales we shall also find two distinct groups, those with a regular and those with an irregular fingering.

FIRST GROUP.

E flat, F, F sharp, G.

SECOND GROUP.

G sharp, A, B flat, B, C, C sharp, D.

MAJOR SCALES

* Fingering for velocity, the same for all scales.

¹ The scales are linked by the joining of two symmetrical tetrachords, which help the player to pass from one scale to another through the common tetrachords.

SCALES

43

Musical notation example 10 shows a melodic line with fingerings (1, 2, 3, 0, 1, 2, 3) and a comparison to A flat.

Musical score for 'The Star-Spangled Banner' featuring two staves. The top staff shows a treble clef, a key signature of one sharp, and a common time signature. The bottom staff shows a bass clef, a key signature of one sharp, and a common time signature. Measure 11 starts with a rest followed by eighth notes. Measure 12 begins with a sixteenth note followed by eighth notes. The lyrics 'O'er the rampart we watch'd' are written below the notes.

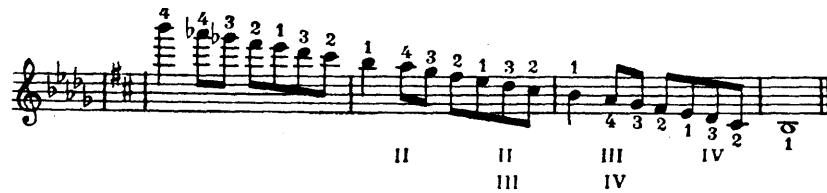
The image shows the first four measures of the melody for 'The Star-Spangled Banner'. The key signature is F major (one sharp). Measure 1 starts with a bass note followed by a series of eighth-note chords. Measure 2 begins with a bass note and continues with eighth-note chords. Measures 3 and 4 continue the pattern of bass notes and eighth-note chords. The vocal line consists of eighth-note patterns primarily on the G and A strings.

A musical score page from 'The Nutcracker' by Pyotr Ilyich Tchaikovsky. The page shows a single melodic line on a five-line staff. The key signature is A major (one sharp). The time signature is common time. The melody consists of eighth and sixteenth notes. Fingerings are indicated above the notes: IV, III, II, I, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2, 1, 2. Articulation marks (short vertical dashes) are placed under several notes. The bass clef is at the beginning of the staff. The page number 1 is in the bottom right corner.

A musical score for piano, featuring two staves. The top staff uses a treble clef and the bottom staff uses a bass clef. The score consists of 12 measures, numbered I through XII above the staff. Measure I starts with a forte dynamic (f) and includes a first ending with a repeat sign and a second ending. Measures II through XII continue the melodic line, with measure IV containing a fermata over the bass note.

MINOR SCALES

A musical score for piano, featuring two staves. The left staff uses a treble clef and the right staff uses a bass clef. Both staves begin with a key signature of one sharp (F#). The music consists of eighth-note patterns. Measure 1 starts with a single note, followed by a group of four notes. Measures 2-4 show a repeating pattern of four notes. Measures 5-8 introduce a new pattern where each measure contains eight notes. Measure 9 begins with a single note, followed by a group of four notes. Measures 10-12 show a repeating pattern of four notes. Measures 13-16 introduce a new pattern where each measure contains eight notes. Measures 17-19 show a repeating pattern of four notes. Measures 20-22 introduce a new pattern where each measure contains eight notes. Measures 23-25 show a repeating pattern of four notes. Measures 26-28 introduce a new pattern where each measure contains eight notes. Measures 29-31 show a repeating pattern of four notes. Measures 32-34 introduce a new pattern where each measure contains eight notes. Measures 35-37 show a repeating pattern of four notes. Measures 38-40 introduce a new pattern where each measure contains eight notes. Measures 41-43 show a repeating pattern of four notes. Measures 44-46 introduce a new pattern where each measure contains eight notes. Measures 47-49 show a repeating pattern of four notes. Measures 50-52 introduce a new pattern where each measure contains eight notes. Measures 53-55 show a repeating pattern of four notes. Measures 56-58 introduce a new pattern where each measure contains eight notes. Measures 59-61 show a repeating pattern of four notes. Measures 62-64 introduce a new pattern where each measure contains eight notes. Measures 65-67 show a repeating pattern of four notes. Measures 68-70 introduce a new pattern where each measure contains eight notes. Measures 71-73 show a repeating pattern of four notes. Measures 74-76 introduce a new pattern where each measure contains eight notes. Measures 77-79 show a repeating pattern of four notes. Measures 80-82 introduce a new pattern where each measure contains eight notes. Measures 83-85 show a repeating pattern of four notes. Measures 86-88 introduce a new pattern where each measure contains eight notes. Measures 89-91 show a repeating pattern of four notes. Measures 92-94 introduce a new pattern where each measure contains eight notes. Measures 95-97 show a repeating pattern of four notes. Measures 98-100 introduce a new pattern where each measure contains eight notes.



SCALES

45

The sheet music consists of seven staves of musical notation, each representing a different scale pattern. The staves are arranged vertically, with the first two at the top and the last five below them.

- Staff 1:** Treble clef, key signature of four sharps (F# G# A# C# D# E#). Fingerings: 1 2 3 4, 2 3 4 1, 2 3 4 1, 2 3 4 1. Position markers: III, II, II.
- Staff 2:** Treble clef, key signature of one sharp (G#). Fingerings: 4 3 2 1, 3 2 1, 4 3 2 1, 3 2 1. Position markers: II, III, IV.
- Staff 3:** Treble clef, key signature of three sharps (F# G# C#). Fingerings: 1 2 3 4, 1 2 3 4, 1 2 3 4. Position markers: III, II, I.
- Staff 4:** Treble clef, key signature of one sharp (G#). Fingerings: 4 3 2 1, 3 2 1, 4 3 2 1, 3 2 1. Position markers: II, III, IV.
- Staff 5:** Treble clef, key signature of one sharp (G#). Fingerings: 1 2 3, as above.
- Staff 6:** Treble clef, key signature of one sharp (G#). Fingerings: 2 3 4 1, 2 3 4 1, 2 3 4 1. Position markers: III, II, II.
- Staff 7:** Treble clef, key signature of one sharp (G#). Fingerings: 4 3 2 1, 3 2 1, 4 3 2 1, 3 2 1. Position markers: I, II, III, IV.

The advantage of finishing the scale with the third finger is obvious; not only does it produce a stronger attack and a more powerful tone, but also the proverbial uncertainty of the fourth finger, which no method will ever entirely cure, is avoided.

It only remains for us to prove that Paganini did actually make use of this fingering for scales, and our conviction as to this seems well supported by the explanation which we are about to give as to the ease with which the master played, at times on a violin tuned ordinarily, at others on a violin tuned to a totally different pitch.

The indifference which he displayed concerning pitch has remained a complete enigma both to the violinists of his own time and to those following him; and to this day no one has succeeded in solving this riddle.

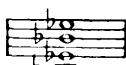
"The tuning of his instrument," explains Guhr, "is very unusual, original, and is in many ways quite inexplicable. Sometimes he will tune the three top strings a semi-tone above the usual pitch, sometimes he will tune the G string a minor third higher than usual."

In *Hesperus* of the year 1829 we read, "he had tuned the G string up to B flat and the E string from E to F."¹

I have come to the conclusion that Paganini tuned either in fourths or in fifths. By this means he could, for instance, play the scale of B flat with an absolutely regular system of fingering.



¹ This is doubtless a mistake: he had probably lowered the E string to E flat.

If, on the other hand, Paganini tuned in accordance with this illustration,  he would obtain the natural fingering for the scale of E flat.



The "dodge" of tuning the violin according to the scale, and in fifths, was not a new one. In the *Allgemeine musikalische Zeitung* for October 1798 the violinist Berwald is stated to have made use of this method.

Everyone is free to enrich violin literature according to his fancy, with all the possible combinations produced by the different methods of tuning, combinations which allowed Paganini "to stretch easily the four B flats, although his hand was only an average size." By adopting his method of tuning every skilful violinist can do as much.

By raising the E to F sharp Paganini had no difficulty in astonishing his hearers "by the extreme velocity of his passages in chromatic octaves, and by his trills in octaves." For with this tuning, the octave falls naturally between the first and third fingers, so that the series of fingered octaves (1—3, 2—4) no longer presents the slightest difficulty.

We can deduce from the preceding remarks that all this was a side issue of Paganini's art; we can only look on it as an experience about which the master allowed himself no illusions, and which he would have considered unworthy of notice.

We have only concerned ourselves with these facts because they prove to us the correctness of the theories which we are advocating: namely, that Paganini was preoccupied with a fingering which accorded with the natural fall of the fingers.

VII

THE ARPEGGIOS

IN most manuals of instruction, the major and minor arpeggios in three octaves are given in a more natural manner than the scales.

This is due to the fact that the fingerings given for the fifth and the octave afford a certain protection against the enforced positions of the hand.

Nevertheless it is quite usual to meet, even in these cases, fingerings which have arisen from a traditional lack of understanding, and which are quite illogical.

For instance:



instead of

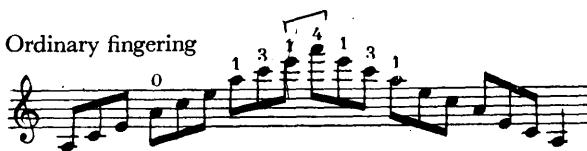


The fingering usually employed for A major and minor demands a stretch which is more often than not impracticable.



In this illustration, the fourth finger falls into place without effort, with greater accuracy and strength than it could achieve

Ordinary fingering



by using the extension ; and every violinist sure of his bow will know how to employ this fingering, taking care that no accent results from this changing of the finger.

The position of the fifth plays a large part in arpeggios ; it is a point of "support," and as the succession of similar intervals allows the repetition of this position it can therefore be applied to all the arpeggios.

(See Sevcik's *Technique of the Violin*, vol. 3.)

MENDELSSOHN. *Concerto*



SAINT-SAENS. *Morceau de Concert.*



VIII

NATURAL FINGERING IN THE CHORD OF THE SEVENTH

LET us take for example this chord:—

D sharp, F sharp, A, C, as the arpeggio is presented in Sevcik's work, op. 1.



What are the difficulties presented by this fingering?

(1) The first finger stops the A, then the D sharp—that is to say, it must come down again to the half position although the arpeggio is ascending.

(2) Inconvenience caused by the interval D sharp to F sharp.

(3) The second finger stops F sharp, then C, and the difficulty is even more marked if the intervening A is played with the fourth finger.

(4) The first finger must go from D sharp to A.

Let us find the natural fingering.

First of all we must take into consideration the D sharp which lies in the half position.

If we stop D sharp with the first finger, then it is natural to stop F sharp with the third and C with the fourth.



NATURAL FINGERING IN CHORD OF THE SEVENTH 51

Continuing this method of fingering in the third position, we get this:—



It follows that the natural fingering for the passage will be:—



which gives us this fingering for the arpeggio:—



(the same fingering for the downward passage).

Let us take this arpeggio, once more from Sevcik:—

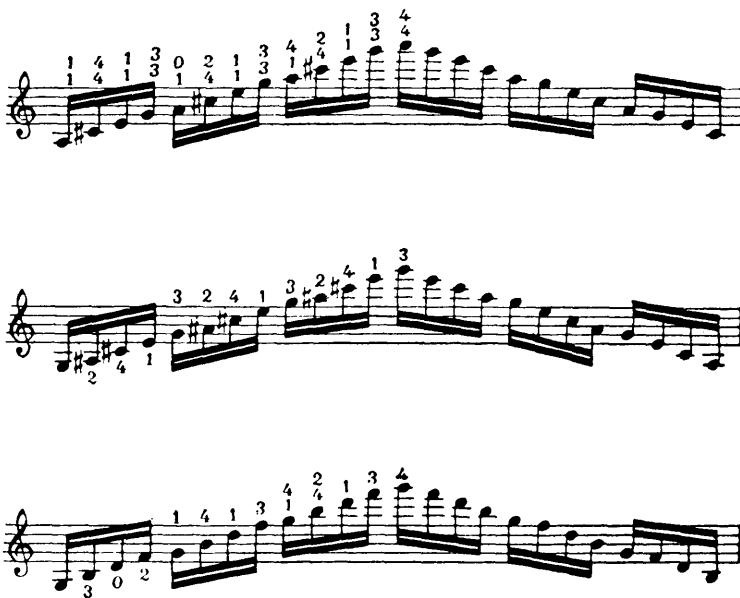


Inconveniences :—



Natural fingering :—

The image displays six staves of musical notation, likely for a woodwind instrument, illustrating natural fingering patterns. Each staff begins with a treble clef and a key signature of one flat. The notation consists of short vertical stems with small numbers indicating fingerings. The first staff shows a sequence of notes with fingerings 1, 3, 0, 2, III, II, II, I, II, II, III. The second staff starts with 4, 1, 3, 2, followed by a series of notes with complex fingerings like 1, 1, 3, 2, 4, 2, 3, 1, 4, 2, 3, 1. The third staff features fingerings such as 3, 1, 1, 3, 4, 2, 1, b, 3, 1, 4, 2, 1, b, 3, 1, 4, 1, 3, 1, 4. The fourth staff begins with 2, 4, 1, 0, 2, followed by 3, b, 2, 4, 1, 3, b, 2, 4, 1, 3, b, 2, 4, 1, 3, b. The fifth staff starts with 1, 4, 1, 3, 4, 2, 1, b, 3, 1, 4, 2, 1, b, 3, 1, 4, 2, 1, b, 3, 1, 4. The sixth staff begins with 2, 4, 1, 3, followed by 2, 4, 1, 3, b, 2, 4, 1, 3, b, 2, 4, 1, 3, b.



The reader is now in a position to judge for himself the value of our system by comparing the fingering here given with that of Sevcik. One fact which alone goes to prove the lack of logic in his method of fingering is this; without reason he alters the fingering of arpeggios played enharmonically although the actual harmony of the arpeggio does not change.¹

SEVCIK. *Technique du Violon*

¹ The choice of a natural fingering does not in any way prevent us from observing the finer shades of intonation necessitated by enharmonic changes, e.g. F sharp to G flat.

The image displays a musical score consisting of four staves of piano music. The first two staves are grouped by a brace and labeled "page 14". The third and fourth staves are also grouped by a brace and labeled "page 15". Fingerings are indicated above the notes on each staff. The first staff of page 14 starts with a note at 0, followed by a note at 1, then a group of three notes at 4, 1, and b. The second staff of page 14 starts with a note at 0, followed by a note at 2, then a group of four notes at 4, 2, 1, and 3. The first staff of page 15 starts with a note at 0, followed by a note at 2, then a group of four notes at 3, 4, 2, and 1. The second staff of page 15 starts with a note at 0, followed by a note at 2, then a group of four notes at 3, 4, 2, and 1. The third staff of page 14 starts with a note at 2, followed by a note at 4, then a group of four notes at 1, 1, 4, and b. The fourth staff of page 14 starts with a note at 2, followed by a note at 4, then a group of four notes at 1, 1, 4, and b.

IX

THE FINGERING ADAPTED TO THE INTERVAL

DISREGARD of the natural fall of the fingers is one of the fundamental errors of the usual conception of fingering, and is markedly apparent to us in the execution of passages where the same finger is used to play two successive notes in order to accord with the usual systems of "positions."

Moreover this system is opposed to the natural exigencies presented by the structure of the hand. Nothing makes exact intonation more difficult than *the stopping of varying intervals by a single finger*, or, to put it more clearly, *by a changing of the position of the finger unaccompanied by a corresponding change in the position of the hand*. Proof thereof is to be found in the following example:—

BEETHOVEN. *Concerto*

The musical score consists of two staves of music. The top staff shows a sequence of notes with fingerings: a vertical line with '3' above the first note, a vertical line with '3' above the second note, and a vertical line with 'a' above the third note. The bottom staff shows a sequence of notes with fingerings: a vertical line with 'c' below the first note, a vertical line with 'd' below the second note, and a vertical line with 'b' below the third note. Below the musical score is a small diagram consisting of three vertical lines connected by curved arrows, illustrating the movement of a finger between different positions on the fingerboard.

We see that the third finger having accustomed itself after constant practice to stop the C sharp, F sharp, and G sharp, is expected to alter no less than four times in less than two bars the direction in which it falls (5th and 6th bars of the example), and that at a rapid tempo.

Also the change of:—



obviously constrains the second finger. In the following example

all difficulties disappear, the fingering chosen being adapted to the intervals.

The execution of  is greatly facilitated by the preceding G sharp being held by the second finger, leaving the first finger free to stop the C natural.

It is the same in the following:—

BRAHMS. *Concerto 1* BRAHMS. *Double Concerto*

A musical score for piano, showing two staves. The left staff uses a treble clef and has a key signature of one sharp. The right staff uses a bass clef and has a key signature of one sharp. Measure 11 starts with a forte dynamic. Measure 12 begins with a half note on the bass staff, followed by a eighth-note pattern on both staves.

BACH. Chaconne

The image shows two staves of musical notation. The left staff is in G major (one sharp) and the right staff is in C major (no sharps or flats). Measure 39 starts with a bass note followed by six eighth-note pairs. Measure 40 begins with a bass note, followed by a sixteenth-note pattern (up-down-up-down), then a sixteenth-note run, and finally a sixteenth-note pattern (up-down-up-down) again.

A typical example, which we find constantly repeated, is this:

BRAHMS. *Concerto*

A musical score for piano, showing two staves. The top staff uses a treble clef and the bottom staff uses a bass clef. Both staves have a key signature of one sharp (F#). Measure 11 starts with a forte dynamic (F) on both staves. Measure 12 begins with a forte dynamic (F) on the bass staff, followed by a half note on the treble staff.

which is usually played with the fingering indicated above instead of thus :—

The first finger represents the axis round which the fourth and second fingers can move without restraint, and without forcing them to leave the normal position in which they are playing.

MENDELSSOHN. *Concerto*BRAHMS. *Concerto*

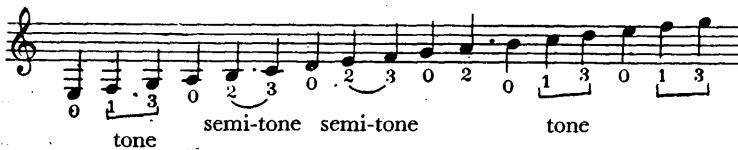
X

THE NON-SUCCESSIVE SEQUENCE OF THE
FINGERS

THE importance given to the natural tendency of the fall of the fingers frequently leads to an interruption of their usual sequence. We may be obliged to "skip" a finger, using instead the one which lies in the most natural position for stopping the required note, thus avoiding a useless change of position.

This alteration in the ascending or descending sequence of the fingers is one of the principal laws of natural fingering, and is in absolute agreement with the very strict rules that govern the technique of the guitar.

Fingering for the guitar:—



(See the scale of A major for the violin.)

BEETHOVEN. *Concerto*



MENDELSON

A musical score page showing two measures of music. The key signature is one sharp. Measure 11 starts with a half note followed by a sixteenth-note pattern. Measure 12 starts with a quarter note followed by a sixteenth-note pattern. The page number '10' is at the bottom right.

D'AMBROSIO. 2^o Concerto

XI

EXTENSIONS

As we have already said, finger extensions play a very important part in the technique of the violin.

For the particular study we have in hand, we may confine ourselves to enquiries relating to fingering, and anyone wishing to go more deeply into this question, including its physical aspect, is advised to read the informative work by Dr. Mittleman and Professor Ondricek, *The Mastery of the Violin*. The exercises which they give for the extensions admirably fulfil their purpose, which is to provide a training so comprehensive as to embrace all possible demands on the violinist; so that a violinist who has learnt to play in twelfths can easily play simple tenths. All experience agrees that the repertoire of the virtuoso presupposes an ability in the artist to play without effort, tenths, fingered octaves, etc. We know to what degree of skill Paganini had attained in this direction. Exercises in extensions are therefore the quintessence of the preliminary technical study, since they help to correct the natural hindrances to rapidity.

On the other hand we have already shown that the natural method of fingering aims at the avoidance of *needless* extensions. That is to say, our fingering *is not in any way intended as a substitute for the study of extensions*.

What we call a "backward" extension is simply the descending extension of the first finger.

The following illustrations are typical examples of the extensions in question; in most cases they are necessitated by repetition of a figure. Thanks to the extension, the "supporting" finger does not move, and unnecessary changes of position are thus avoided.

BEETHOVEN. *Sonate à Kreutzer*VIEUXTEMPS-ALABIEFF. *Le Rossignol*BACH. *Double*RODE. *Etude*

XII

HOW TO USE THE PRINCIPLES OF PAGANINI

"I DECLARE that it would be a mistake to search for my 'secret' solely in my method of tuning, or in my use of the bow . . ." With these words Paganini has expressed his opinion that his system could only be of use to a cultivated musician and a thoughtful player.

He demands of his interpreters a complete understanding of the harmonic and thematic structure of the work to be performed. Further, the key to this understanding is to be found primarily in a clear comprehension of the intervals composing a melodic sequence.

The interpreter should then, before deciding upon his fingering, take into account the degrees of tone and sonority required by the composer.

Every work presents a new problem which can only be solved with careful thought.

All mechanical work must be rigorously eschewed ; then only can any system of fingering become an intrinsic part of the artistic whole, not merely an expedient for overcoming difficulties.

The simplifications which Paganini's system suggest to us can be usefully employed only if they go hand in hand with a musical intelligence which ceaselessly endeavours to attain to a higher conception.

As soon as we are able to gauge quickly the written interval we shall at once find the natural fingering for it. Moreover, even in sight-reading the hand will readily accustom itself to this system, assimilating it with a combination of intelligence and instinct which in fact becomes second nature.

It will then be easier for the violinist to adopt this theory than he at first thought possible. And the surprising rapidity with which he will become accustomed to it is in itself proof of how completely this method removes unnecessary difficulties,

It is only with this in mind that one can understand Paganini's opinion of the violoncellist Ciandelli, the one man to whom he explained his famous "secret."

"He had been playing the 'cello for a long time in a mediocre fashion, so that he passed for no more than an average player, and was rightly held in very little esteem. As this young man interested me and I wished to do him a good turn, I made known to him a discovery which helped him so greatly that within three days he became positively another man." We can account for this miracle.

The young artist suddenly found himself freed from the difficulties under which his left hand had laboured ; he found himself free therefore to devote all his attention to his bowing and to the interpretation of the music. His fear of playing out of tune became a thing of the past, and his fingers could move without constraint. All this sufficed to produce a radical change in Ciandelli's playing.

It now behoves violin players to revise their technical impedimenta in the same way.

Let it be understood that *it is not possible in all cases* to apply the natural fingering. In fact the pitch and tuning of the instrument and the modulations from major to minor will always be sources of difficulty. Without, however, these difficulties, the violin would cease to be "the King of instruments," and become instead just an ordinary piece of mechanical apparatus, performance on which would be not an art, but merely a form of dull calculation.

The musician-violinist must know how to differentiate between natural and "illogical" fingerings. It is only the latter which demand real technical labour ; natural fingering is more a question of choice and of memory than of manual labour.

Paganini was right, then, in his opinion that the duration of violin study could be considerably reduced ; the daily task can be enormously lightened by eliminating hours of useless mechanical toil.

XIII

EXAMPLES OF FINGERING

THE examples given below, and illustrating different possibilities, will help the reader to judge for himself how well-founded is our theory.

The fingering written *above* the example is the one most generally adopted, or the one recommended by a master. The fingering written *beneath* is one which agrees with the natural fall of the finger.

Naturally, in passages requiring an intensity of expression, lyric or dramatic, the interpreter must feel himself absolutely at liberty to make use of whatever fingering is the best medium for conveying his thought and his feeling.

Our theory simplifies and facilitates execution and performance; it is independent of the individual research which every accomplished violinist must feel to be the last word of his artistic labours. As this lies outside all rulings, so must it lie outside the scope of this work.

BEETHOVEN. 3^e Sonate (Joachim)

The image displays three staves of musical notation from Beethoven's 3^e Sonate (Violin Concerto). The notation is in common time, with a key signature of two flats. Fingerings are indicated above the notes in staff a) and staff c), while staff b) shows fingerings beneath the notes. The music consists of eighth and sixteenth note patterns, with some grace notes and slurs.

4^e. Sonate

Fingerings for the 4^e. Sonate:

- Measure 1: 2, 4
- Measure 2: 3, 2, 1
- Measure 3: 4, 3, 2
- Measure 4: 1, 2, 0
- Measure 5: 2, 3, 0

6^e. Sonate

Fingerings for the 6^e. Sonate:

- Measure 1: 1, 2, 3, 4
- Measure 2: 3
- Measure 3: 2, 4, 4, 3, 1
- Measure 4: 1

7^e. Sonate

Fingerings for the 7^e. Sonate:

- Measure 1: 1, 3, 1, 3, 2
- Measure 2: 0, 1, 3, 2, 2, 4
- Measure 3: 3

8^e. Sonate

Fingerings for the 8^e. Sonate:

- Measure 1: 3, 4, 1, 2
- Measure 2: 1, 2, 3, 3
- Measure 3: 2, 3, 4, 1, 2, 4
- Measure 4: 4, 2

9^e. Sonate

Fingerings for the 9^e. Sonate:

- Measure 1: 1, 3, 0, 3, 4, 3, 2, 3, 1, 3
- Measure 2: 2
- Measure 3: 3
- Measure 4: 2

BACH. Sonata I

Fingerings for Bach. Sonata I:

- Measure 1: 0
- Measure 2: 1
- Measure 3: 1
- Measure 4: 1

Partita III

Fingerings for Partita III:

- Measure 1: 1, 2, 4, 1, 1, 2, 4, 1, 1, 2
- Measure 2: 2, 3, 4, 1, 2, 4, 1, 2
- Measure 3: 2, 3, 4, 1, 2, 4, 1, 2

MOZART. *Concerto en Ré* (David)(1) BRAHMS. *Sonate op. 108*(1) BRAHMS. *Sonate*DEBUSSY. *Sonate*BEETHOVEN. *Concerto*BRUCH. *Concerto en Sol mineur*

WIENIAWSKI. 2^o Concerto

TSCHAÏKOVSKY. Concerto

(1) BRUCH. *Fantaisie Ecossaise*

(1) DVORAK. *Concerto*

D'AMBROSIO. *2^o Concerto*

Fingerings for the first staff:
4. 3 2 4 2 3 2 4 2 1
Fingerings for the second staff:
3 3 0 2 4 1 0 4 4

MEDTNER. *Sonate op. 21*

Fingerings:
1 4 0 1 2 3 2 1 0

GLAZOUNOFF. *Concerto*

Fingerings:
2 4 3 1 8 4
0 1 3 2 4 1 3 3 2 4 0

BEETHOVEN. *Sonate*

Fingerings:
1 3 4 1 2 3 1 2 3 4 1 2 3

BEETHOVEN. *Sonate*

Fingerings:
1 2 3 4 3 2 3 1 3 1 4 2 3 1 4 2 3 2 3 4 1 1 4 2 3

BACH. *Partita*

Fingerings for the first staff:
0 4 2 1 4 2 4 3 2 3 3 2 3 4 2 1
Fingerings for the second staff:
4 3 4 3 2 1 3 2 4 2 3 2 1

MOZART. *Menuet*FRANÇOEUR. *Rigaudon*MENDELSSOHN. *Concerto*BRAHMS. *Sonate*CHAUSSON. *Poème*LALO. *Symphonie espagnole*SINDING. *Suite*TSCHAÏKOVSKY. *Trio*

GLAZOUNOFF. *Concerto*FRANCK. *Sonate*CANTELOUBE. *Suite*TCHEREPNINE. *Sonate*COOLS. *Pliaska (Danse Russe)*HONEGGER. *Sonate*